

## ExxonMobil Santoprene® 271-80 Thermoplastic Elastomer

Category : Polymer , Thermoplastic , Elastomer, TPE , Thermoplastic Vulcanizate Elastomer (TPV)

### Material Notes:

A soft, colorable, specialty thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. It complies with FDA regulations for rubber articles intended for repeated use, as well as those in contact with non-fatty, non-oily foods as closures and sealing gaskets. This grade of Santoprene TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding, extrusion or blow molding. It is polyolefin based and completely recyclable. Recommended for applications requiring excellent flex fatigue resistance. Recommended for applications requiring excellent ozone resistance. Information provided by Advanced Elastomer Systems

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ExxonMobil-Santoprene-271-80-Thermoplastic-Elastomer.php](http://www.lookpolymers.com/polymer_ExxonMobil-Santoprene-271-80-Thermoplastic-Elastomer.php)

Physical Properties	Metric	English	Comments
Specific Gravity	0.960 g/cc	0.960 g/cc	23°C; ASTM D792

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	80	80	.12 in; ASTM D2240
Tensile Strength at Break	8.3254 MPa	1207.5 psi	257°F, 70 hr, in IRM 903 Oil; ASTM D471
	10.546 MPa	1529.5 psi	Air at 302°F, 168 hr; ASTM D573
	11.1 MPa	1610 psi	Across Flow; ASTM D412
Tensile Strength, Ultimate	4.69 MPa	680 psi	Across Flow; ASTM D412
Elongation at Break	307.8 %	307.8 %	257°F, 70 hr, in IRM 903 Oil; ASTM D471
	475.2 %	475.2 %	Air at 302°F, 168 hr; ASTM D573
	540 %	540 %	Across Flow; ASTM D412
Tear Strength	35.1 kN/m	200 pli	73°F, Die C; ASTM D624
Compression Set	41 %	41 %	158°F, 22 hr; ASTM D395
	47 %	47 %	257°F, 70 hr; ASTM D395

Thermal Properties	Metric	English	Comments
Brittleness Temperature	-60.0 °C	-76.0 °F	ASTM D746

Processing Properties	Metric	English	Comments
Processing Temperature	175 - 230 °C	347 - 446 °F	

Rear Barrel Temperature Processing Properties	177 °C Metric	350 °F English	Comments
Middle Barrel Temperature	182 °C	360 °F	
Front Barrel Temperature	182 °C	360 °F	
Nozzle Temperature	193 - 232 °C	380 - 450 °F	
Die Temperature	210 °C	410 °F	Extrusion
Melt Temperature	204 °C	400 °F	Extrusion
	199 - 232 °C	390 - 450 °F	
Mold Temperature	10.0 - 51.7 °C	50.0 - 125 °F	Processing
Drying Temperature	82.2 °C	180 °F	
Dry Time	3 hour	3 hour	
Moisture Content	0.080 %	0.080 %	
Back Pressure	0.345 - 0.689 MPa	50.0 - 100 psi	Processing
	5.00 - 20.0 MPa	725 - 2900 psi	Extrusion
Clamp Pressure	41.4 - 68.9 MPa	6000 - 10000 psi	
Vent Depth	0.00254 cm	0.00100 in	
Cushion	0.317 - 0.635 cm	0.125 - 0.250 in	
Screw Speed	100 - 200 rpm	100 - 200 rpm	

Descriptive Properties	Value	Comments
Color	Natural Color	
Form	Pellets	
Injection Rate	Fast	
Maximum Regrind %	20	
Screw Compression Ratio	2:1 - 2.5:1	
Screw L/D Ratio	16:1 - 20:1	

## Contact Songhan Plastic Technology Co.,Ltd.

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